

Claims

WHAT IS CLAIMED IS:

1. - 13. (canceled)

14. (new) A cold rolling method for producing an annular composite workpiece, the method comprising the steps of:

inserting at least two hollow cylindrical workpieces made of different materials into one another;

axial roll forming the at least two hollow cylindrical workpieces by pressing the at least two hollow cylindrical workpieces against each other between two diametrically opposed outer roll forming tools and an inner rolling arbor or between two diametrically opposed outer roll forming tools and an inner roll forming tool to form a composite workpiece.

15. (new) The method according to claim 14, wherein the hollow cylindrical workpieces are inserted loosely into each other.

16. (new) The method according to claim 14, wherein the at least two hollow cylindrical workpieces have play relative to one another such that they can barely be inserted by hand.

17. (new) The method according to claim 14, wherein the at least two hollow cylindrical workpieces are rings and wherein in the step of roll forming an axial roll forming method is used.

18. (new) The method according to claim 14, wherein the at least two hollow cylindrical workpieces are pipes and wherein in the step of roll forming an axial roll forming method is used.

19. (new) The method according to claim 14, wherein the at least two hollow cylindrical workpieces have surfaces touching one another and wherein at least one of the surfaces is coated with a material.

20. (new) The method according to claim 19, wherein the material is aluminum.

21. (new) An annular composite workpiece comprised of at least two hollow cylindrical workpieces made of different materials and roll-formed by axial roll forming.

22. (new) The composite workpiece according to claim 21, wherein the composite workpiece is a bearing ring.

23. (new) The composite workpiece according to claim 22, wherein a first one of the at least two hollow cylindrical workpieces forming a bearing race of the bearing ring is made of antifriction bearing steel and wherein a second one of the at least two hollow cylindrical workpieces forming a support ring of the bearing ring is made of a steel having a reduced quality compared to the antifriction bearing steel.

24. (new) The composite workpiece according to claim 21, wherein the composite workpiece is a gear ring.

25. (new) The composite workpiece according to claim 21, wherein one of the at least two hollow cylindrical workpieces is comprised of a nonferrous metal.

26. (new) The composite workpiece according to claim 25, wherein the nonferrous material is aluminum.

27. (new) The composite workpiece according to claim 21, wherein one of the at least two hollow cylindrical workpieces is made of plastic material.

28. (new) The composite workpiece according to claim 21, wherein one of the at least two hollow cylindrical workpieces is made of powder material.

29. (new) An annular composite workpiece produced according to the method of claim 14.